

Fig. 1

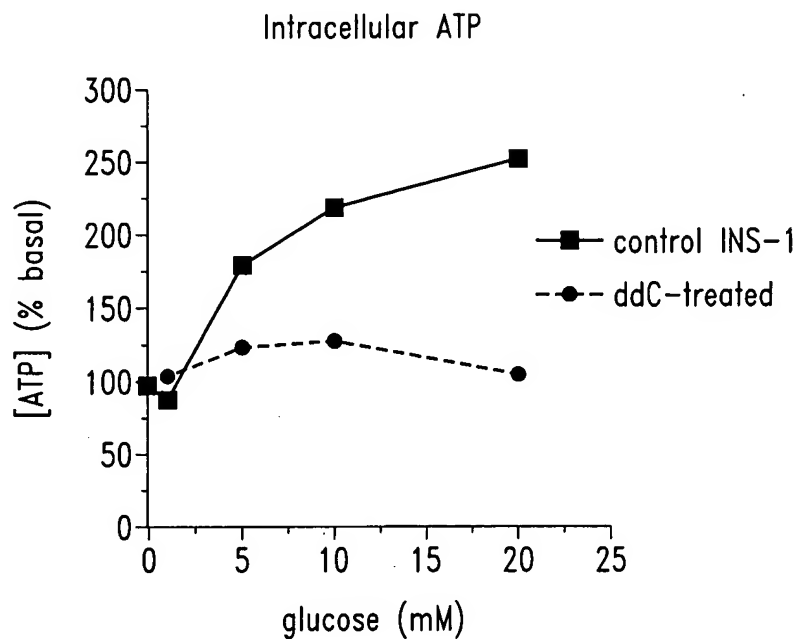


Fig. 2A

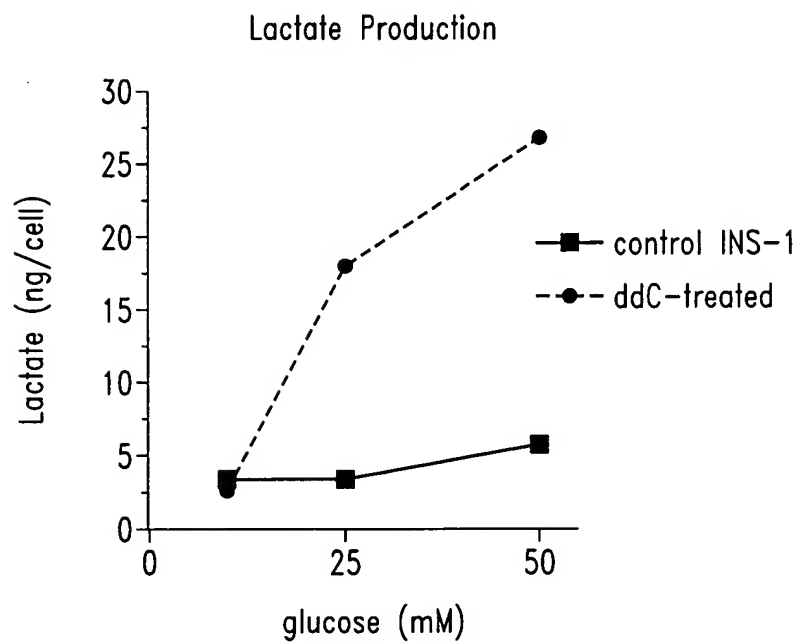


Fig. 2B

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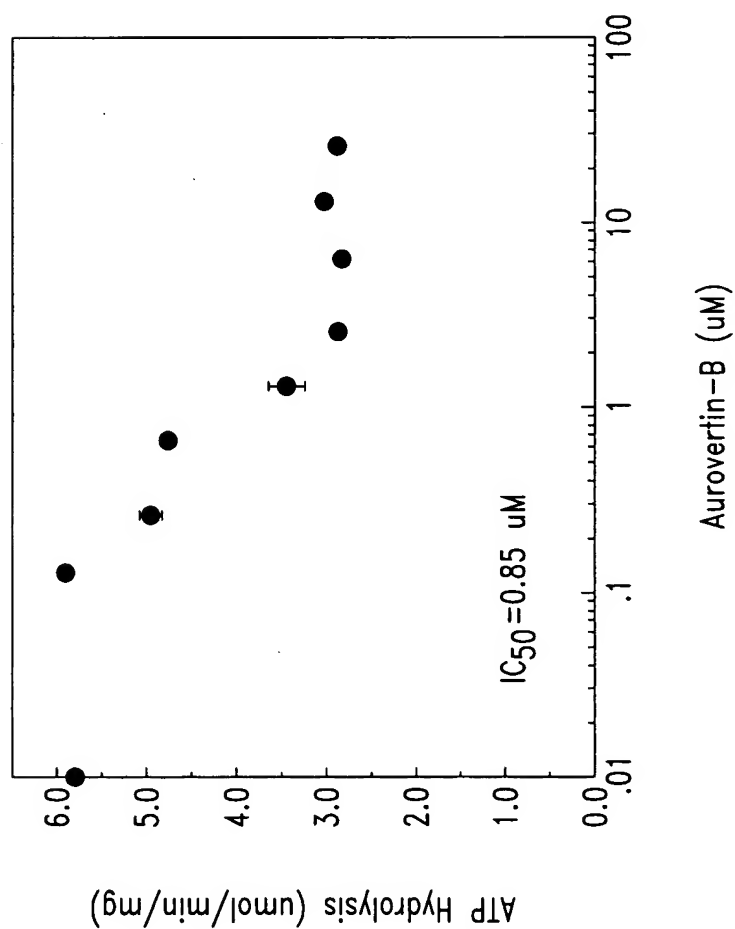


Fig. 3

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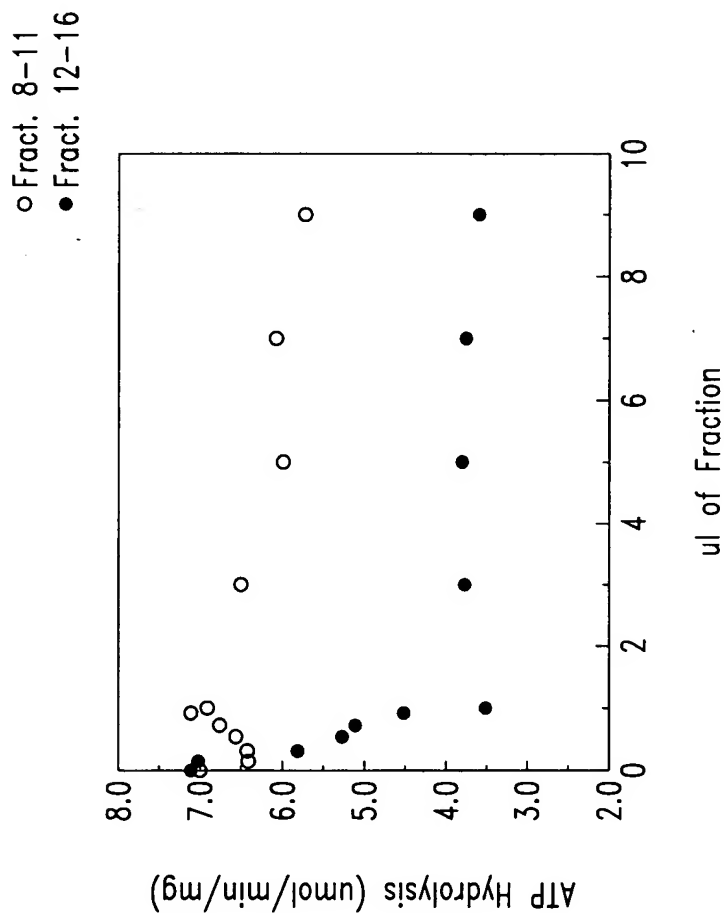


Fig. 4

GSDSSESMDSGAGSIREAGGAFGKREKAEEDRYFE

KTREQLAALKKHHEDEIDHHSKEIERLQKQIERKKI

KYLNSEH

| | F ₁ | F ₀ -F ₁ -SMP |
|-------------------------|----------------|-------------------------------------|
| IF ₁ (22-46) | 1.39 μ M | N.E. |
| IF ₁ (42-58) | 0.87 μ M | 0.18 μ M |

Fig. 5

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20220915 15:03:27

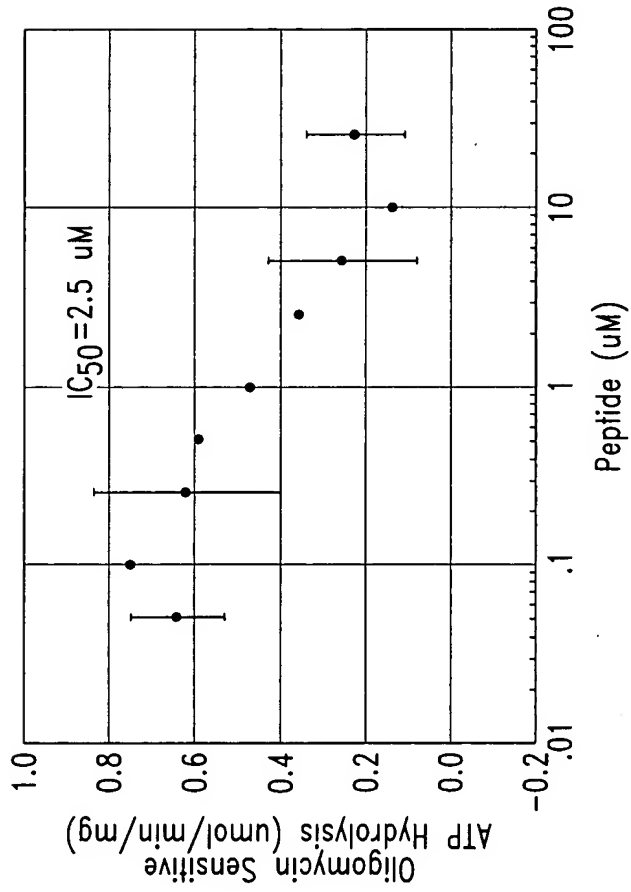


Fig. 6

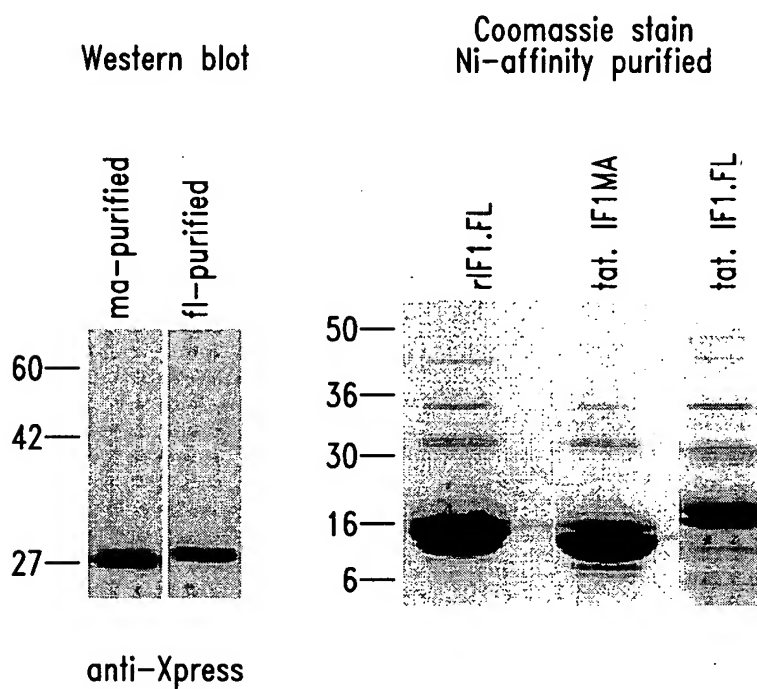


Fig. 7

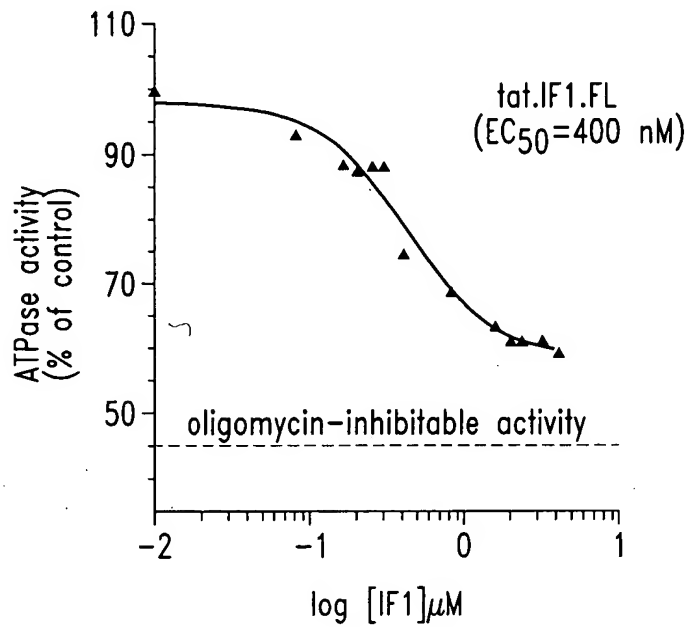


Fig. 8

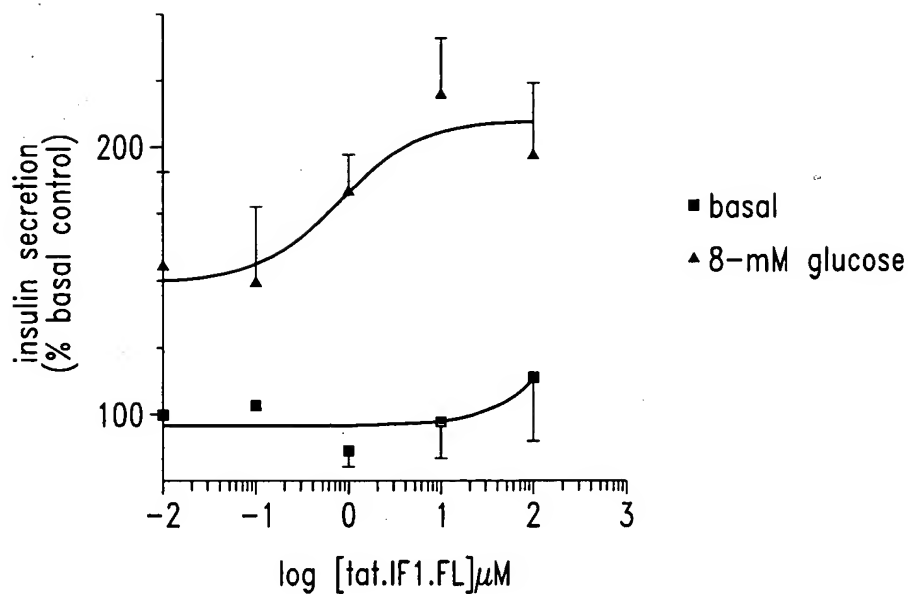


Fig. 9

| IF1 fragments Sequence | AA Residue Nos. (mature form) | length | Est mw | SEQ ID NO: |
|------------------------------------|----------------------------------|--------|--------|------------|
| SIREAGGAFGKREKAEEDRYFREKTREQLAALKK | 14-47 | 34 | 3876 | 29 |
| SIREAGGAFGKREKAEEDRY | 14-33 | 20 | 2200 | 30 |
| IREAGGAFGKREKAEEDRYF | 15-34 | 20 | 2200 | 31 |
| REAGGAFGKREKAEEDRYFR | 16-35 | 20 | 2200 | 32 |
| EAGGAFGKREKAEEDRYFRE | 17-36 | 20 | 2200 | 33 |
| AGGAFGKREKAEEDRYFREK | 18-37 | 20 | 2200 | 34 |
| GGAFGKREKAEEDRYFREKT | 19-38 | 20 | 2200 | 35 |
| GAFGKREKAEEDRYFREKTR | 20-39 | 20 | 2200 | 36 |
| AFGKREKAEEDRYFREKTRE | 21-40 | 20 | 2200 | 37 |
| FGKREKAEEDRYFREKTREQ | 22-41 | 20 | 2200 | 38 |
| GKREKAEEDRYFREKTREQL | 23-42 | 20 | 2200 | 39 |
| KREKAEEDRYFREKTREQLA | 24-43 | 20 | 2200 | 40 |
| REKAEEDRYFREKTREQLAA | 25-44 | 20 | 2200 | 41 |
| EKAEEDRYFREKTREQLAAL | 26-45 | 20 | 2200 | 42 |
| KAEEDRYFREKTREQLAALK | 27-46 | 20 | 2200 | 43 |
| AEDRYFREKTREQLAALKK | 28-47 | 20 | 2200 | 44 |
| SIREAGGAFGK | 14-24 | 11 | 1210 | 45 |
| SIREAGGAFGKR | 14-25 | 12 | 1320 | 46 |
| SIREAGGAFGKRE | 14-26 | 13 | 1430 | 47 |
| SIREAGGAFGKREK | 14-27 | 14 | 1540 | 48 |
| SIREAGGAFGKREKA | 14-28 | 15 | 1650 | 49 |
| SIREAGGAFGKREKAE | 14-29 | 16 | 1760 | 50 |
| SIREAGGAFGKREKAE | 14-30 | 17 | 1870 | 51 |
| SIREAGGAFGKREKAEED | 14-31 | 18 | 1980 | 52 |
| SIREAGGAFGKREKAEEDR | 14-32 | 19 | 2090 | 53 |
| SIREAGGAFGKREKAEEDRY | 14-33 | 20 | 2200 | 54 |
| SIREAGGAFGKREKAEEDRYF | 14-34 | 21 | 2310 | 55 |
| SIREAGGAFGKREKAEEDRYFR | 14-35 | 22 | 2420 | 56 |
| SIREAGGAFGKREKAEEDRYFRE | 14-36 | 23 | 2530 | 57 |
| SIREAGGAFGKREKAEEDRYFREK | 14-37 | 24 | 2640 | 58 |
| SIREAGGAFGKREKAEEDRYFREKT | 14-38 | 25 | 2750 | 59 |
| SIREAGGAFGKREKAEEDRYFREKTR | 14-39 | 26 | 2860 | 60 |
| SIREAGGAFGKREKAEEDRYFREKTRE | 14-40 | 27 | 2970 | 61 |
| SIREAGGAFGKREKAEEDRYFREKTREQ | 14-41 | 28 | 3080 | 62 |
| SIREAGGAFGKREKAEEDRYFREKTREQL | 14-42 | 29 | 3190 | 63 |
| SIREAGGAFGKREKAEEDRYFREKTREQLA | 14-43 | 30 | 3300 | 64 |
| SIREAGGAFGKREKAEEDRYFREKTREQLAA | 14-44 | 31 | 3410 | 65 |
| SIREAGGAFGKREKAEEDRYFREKTREQLAAL | 14-45 | 32 | 3520 | 66 |
| SIREAGGAFGKREKAEEDRYFREKTREQLAALK | 14-46 | 33 | 3630 | 67 |

Fig. 10

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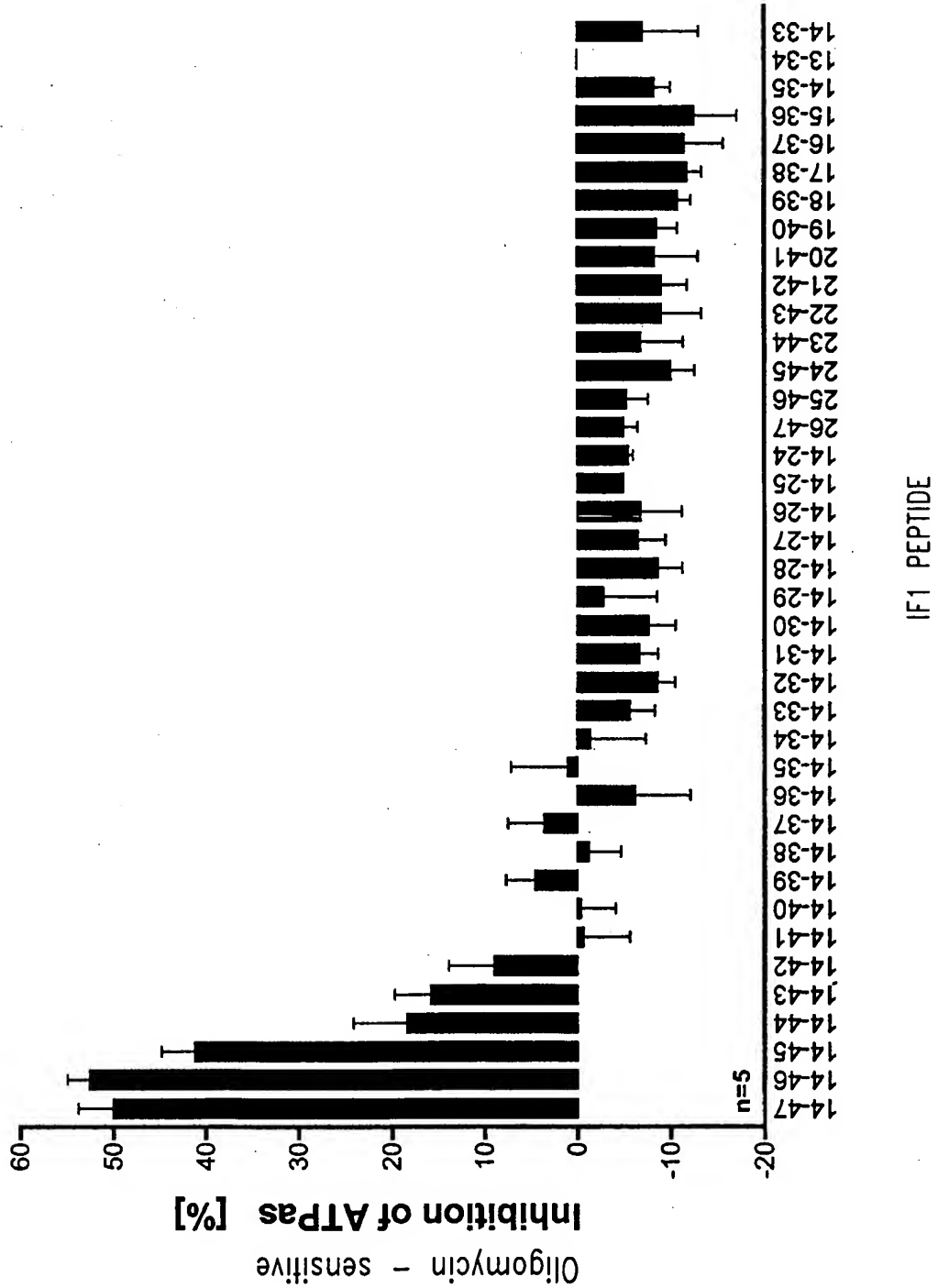


Fig. 11

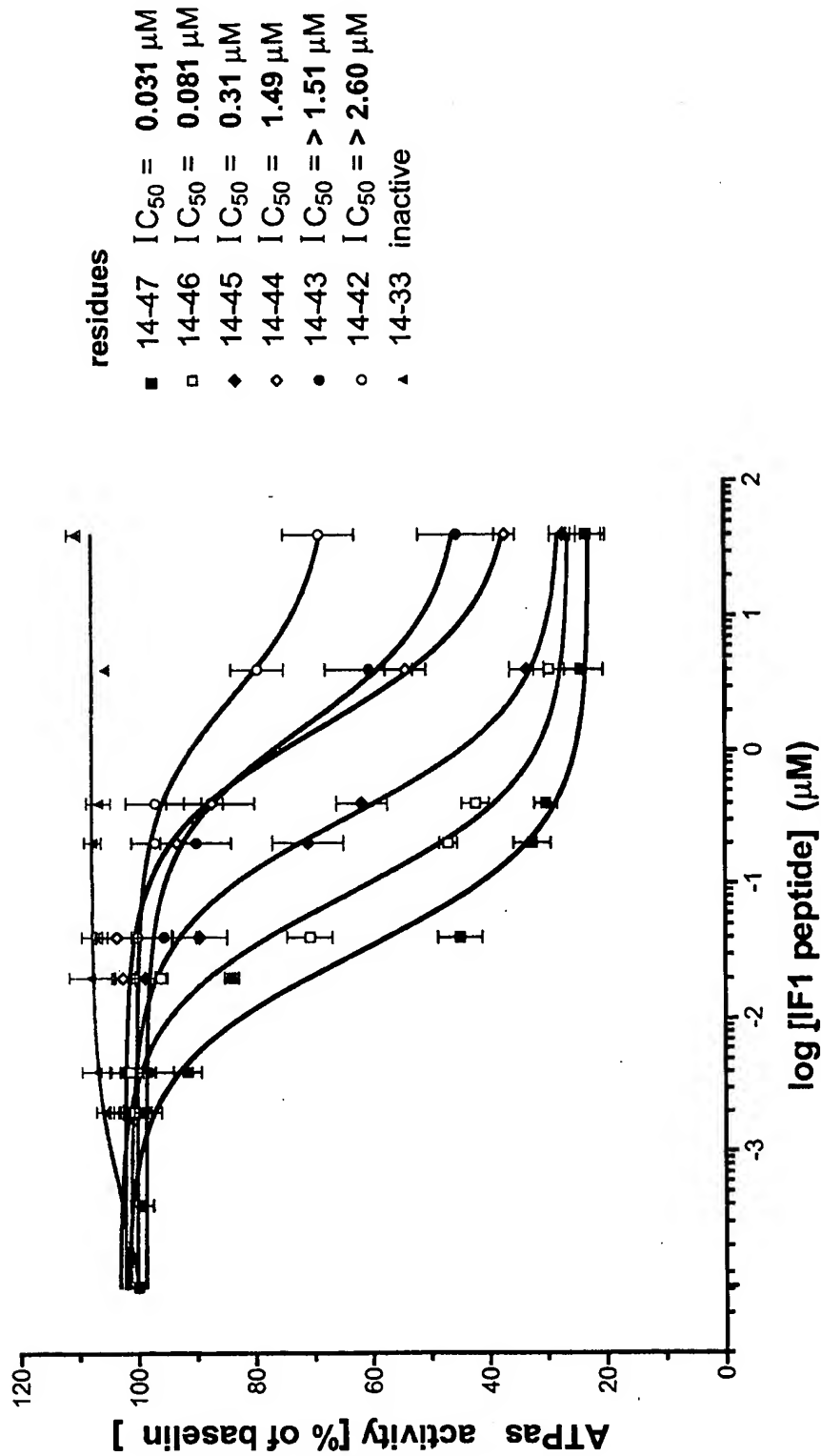


Fig. 12

Effect of tat.mito.14-47 on
Insulin Secretion in INS-1 Cells

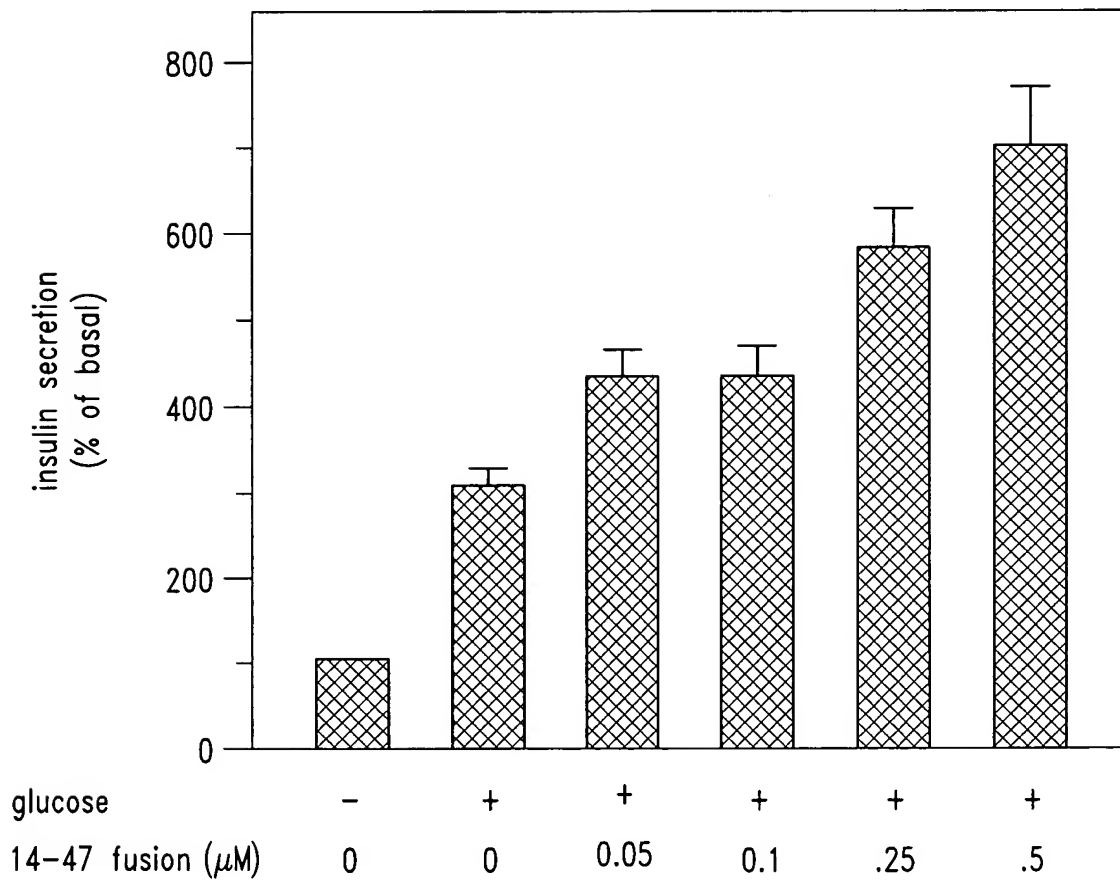


Fig. 13